

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<i>Complete if Known</i>					
		Application Number	10/582,288				
		Filing Date	December 14, 2006				
		First Named Inventor	James C. Jamieson				
		Art Unit	1651				
		Examiner Name	Taeyoon Kim				
Sheet	1	of	4	Attorney Docket Number	R131 1010.1		
U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant passages Or Relevant Figures Appear		T ⁶
	F1	WO 03/066086	08-14-2003	Karsten			
Examiner Signature				Date Considered			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation identification number (serial). See Kinds Codes in USPTO Patent Document at www.uspto.gov or MPEP 901.04. **Citation identification number, by the two-letter code (WO) or ST (for patent documents) followed by the serial number of the document. If the document must process the serial number of the parent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. *Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 27 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application forms to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/582,288
				Filing Date	December 14, 2006
				First Named Inventor	James C. Jamieson
				Art Unit	1651
				Examiner Name	Taeyoon Kim
Sheets	2	of	4	Attorney Docket Number	R131 1010.1

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or county where published.			T ²
	D1	Alexander et al., 1976, "Subcellular localization of B apoprotein of plasma lipoproteins in rat liver," <i>J. Cell Biol.</i> 69: 241-263			
	D2	Antony et al., 1997, "Activation of ADP-ribosylation factor 1 GTPase-activating protein by phosphatidylcholine-derived diacylglycerols," <i>J. Biol. Chem.</i> , 272, 30848-30351			
	D3	Asp et al., 2000, "ADP-ribosylation factor 1 and its activation of phospholipase D are important for the assembly of very low density lipoproteins", <i>J. Biol Chem.</i> 275, 26285-26292			
	D4	Balsinde, 2002, "Roles of various phospholipases A2 in providing lysophospholipid acceptors for fatty acid phospholipid incorporation and remodeling," <i>Biochem J.</i> 364: 695-702			
	D5	Biederick et al., 1995, "Monodansylcadaverine (MDC) is a specific in vivo marker for autophagic vacuoles," <i>Eur.J.Cell Bio.</i> 66: 3-14			
	D6	Blanchette-Mackie et al., 1995, "Perilipin is located on the surface layer of intracellular lipid droplets in adipocytes," <i>J.Lipid Res.</i> , 36: 1211-1226			
	D7	Burnett et al., 2003, "A novel nontruncating APOB gene mutation, R463W, causes familial hypobetalipoproteinemia," <i>J.Biol Chem.</i> 278: 13442-13452			
	D8	Chernomordik, L., M. M. Kozlov, and J. Zimmerberg, 1995, "Lipids in biological membrane fusion," <i>J.Membr. Biol.</i> 146:1-14			
	D9	Cui et al, 1995, "Expression of phosphatidylethanolamine N-methyltransferase-2 in McArdle-RH7777 hepatoma cells inhibits the CDP-choline pathway for phosphatidylcholine biosynthesis via decreased gene expression of CTP:phosphocholine cytidylyltransferase," <i>Biochem J.</i> , 312: 939-945			
	D10	Daleke 2003, "Regulation of transbilayer plasma membrane phospholipid asymmetry," <i>J.Lipid Res.</i> 44: 233-242			
	D11	Dashti et al., 2002, "The N-terminal 1000 residues of apolipoprotein B associate with microsomal triglyceride transfer protein to create a lipid transfer pocket required for lipoprotein assembly," <i>Biochemistry</i> , 41: 6978-6987			
	D12	DeLong et al., 1999, "Molecular distinction of phosphatidylcholine synthesis between the CDP-choline pathway and phosphatidylethanolamine methylation pathway," <i>J.Biol. Chem.</i> 274: 29683-29688			
	D13	Fisher et al., 2001, "The triple threat to nascent apolipoprotein B. Evidence for multiple, distinct degradative pathways," <i>J.Biol. Chem.</i> 276: 27855-27863			
	D14	Fisher et al., 1998, "Apolipoprotein B metabolism in hypertriglyceridemic diabetic patients administered either a fish oil- or a vegetable oil-enriched diet," <i>J. Lipid Res.</i> 39: 388-401			
	D15	Fisher and Ginsberg, 2002, "Complexity in the secretory pathway: the assembly and secretion of apolipoprotein B-containing lipoproteins," <i>J. Biol. Chem.</i> 277: 17377-17380			
	D16	Gusarova et al., 2003, "Apolipoprotein B100 exit from the endoplasmic reticulum (ER) is COPII-dependent, and its lipidation to very low density lipoprotein occurs post-ER," <i>J.Biol. Chem.</i> 278: 48051-48058			
	D17	Harris, 1999, "n-3 fatty acids and human lipoprotein metabolism: an update," <i>Lipids Suppl</i> 34: S257-S258			
	D18	Hebbachi and Gibbons, 2001, "Microsomal membrane-associated apoB is the direct precursor of secreted VLDL in primary cultures of rat hepatocytes," <i>J.Lipid Res.</i> 42: 1609-1617			

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TK/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 3 of 4***Complete if Known***

Application Number	10/582,288
Filing Date	December 14, 2006
First Named Inventor	James C. Jamieson
Art Unit	1651
Examiner Name	Taeyoon Kim
Attorney Docket Number	R131 1010.1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	D19	Hsu et al., 2000, "Effect of n-3 fatty acids on the composition and binding properties of lipoproteins in hypertriglyceridemic patients," Am.J. Clin. Nutr. 71: 28-35	
	D20	Ichimura et al., 2000, "A ubiquitin-like system mediates protein lipidation," Nature 408: 488-492	
	D21	Kabeya et al., 2000, "LC3, a mammalian homologue of yeast Apg8p, is localized in autophagosome membranes after processing," EMBO J. 19 (21): 5720-5728	
	D22	Klionsky and Emr, 2000, "Cell biology - Autophagy as a regulated pathway of cellular degradation," Science 290: 1717-1721	
	D23	Kotkat et al., 1999, "Effect of dietary fish oil (active EPA-30) on liver phospholipids in young and aged rats," Comp Biochem. Physiol A Mol. Integr. Physiol 122: 283-289	
	D24	Lang and Davis, 1990, "Fish oil fatty acids impair VLDL assembly and/or secretion by cultured rat hepatocytes," J. Lipid Res. 31: 2079-2086	
	D25	McLeod et al. 1996, "Apolipoprotein B sequence requirements for hepatic very low density lipoprotein assembly. Evidence that hydrophobic sequences within apolipoprotein B48 mediate lipid recruitment," J. Biol. Chem. 271: 18445-18455	
	D26	McLeod et al., 1994, "Carboxyl-terminal truncation impairs lipid recruitment by apolipoprotein B100 but does not affect secretion of the truncated apolipoprotein B-containing lipoproteins," J. Biol. Chem. 269: 2852-2862	
	D27	Morrisett et al., 2002, "Effects of Sirolimus on Plasma Lipids, Lipoproteins, and Fatty Acid Metabolism in Renal Transplant Patients," J. Lipid Res 43: 1170-1180	
	D28	Mizushima et al., 2003, "Role of the Apg12 conjugation system in mammalian autophagy," Int. J. Biochem. And Cell Biology 35: 553-561	
	D29	Mizushima et al., 2001, "Dissection of autophagosome formation using Apg5-deficient mouse embryonic stem cells," J. Cell Biol. 152(4): 657-668	
	D30	Murphy and Vance, 1999, "Mechanisms of lipid-body formation," Trends Biochem. Sci. 24: 109-115	
	D31	Nestel et al., 1984, "Suppression by diets rich in fish oil of very low density lipoprotein production in man," J. Clin. Invest. 74: 82-89	
	D32	Nishimaki-Mogami et al., 2002, "Inhibition of phosphatidylcholine synthesis via the phosphatidylethanolamine methylation pathway impairs incorporation of bulk lipids into VLDL in cultured rat hepatocytes," J. Lipid Res. 43: 1035-1045	
	D33	Noga et al., 2002, "An unexpected requirement for phosphatidylethanolamine N-methyltransferase in the secretion of very low density lipoproteins," J. Biol. Chem., 277: 42358-42365	
	D34	Packard and Shepherd, 1997, "Lipoprotein heterogeneity and apolipoprotein B metabolism," Arterioscler. Thromb. Vasc. Biol. 17: 3542-3556	
	D35	Parks et al., 1989, "Fish oil decreases hepatic cholesterol ester secretion but not apoB secretion in African green monkeys," J. Lipid Res. 30: 1535-1544	
	D36	Parks et al., 1990, "Effect of fish oil diet on hepatic lipid metabolism in nonhuman primates: lowering of secretion of hepatic triglyceride but not apoB," J. Lipid Res. 31: 455-466	
	D37	Phung et al., 1997, "Phosphoinositide 3-kinase activity is necessary for insulin-dependent inhibition of apolipoprotein B secretion by rat hepatocytes and localizes to the endoplasmic reticulum," J.Biol. Chem. 272: 30693-30702	
	D38	Reggiori and Klionsky 2002, "Autophagy in the eukaryotic cell," Eukaryot. Cell 1(1): 11-21	
	D39	Rustaeus et al., 1999, "Assembly of very low density lipoprotein: a two-step process of apolipoprotein B core lipidation," J. Nutr. 129: 463S-466S	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TK/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 4 of 4*Complete if Known*

Application Number	10/582,288
Filing Date	December 14, 2006
First Named Inventor	James C. Jamieson
Art Unit	1651
Examiner Name	Taeyoon Kim
Attorney Docket Number	R131 1010.1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	D40	Rustaeus et al., 1998, "The microsomal triglyceride transfer protein catalyzes the post-translational assembly of apolipoprotein B-100 very low density lipoprotein in McA-RH7777 cells," J. Biol. Chem. 273: 5196-5203	
	D41	Shelness and Sellers, 2001, "Very-low density lipoprotein assembly and secretion," Curr. Opin. Lipidol. 12(2): 151-157	
	D42	Stillemark et al., 2000, "The assembly and secretion of apolipoprotein B-48-containing very low density lipoproteins in McA-RH7777 cells," J.Biol.Chem. 275: 10506-10513	
	D43	Stromhaug et al., 1998, "Purification and characterization of autophagosomes from rat hepatocytes," Biochem. J. 335: 217-224	
	D44	Sullivan et al., 1986, "Paradoxical elevation of idl apoprotein – b levels in hypertriglyceridemic patients and normal subjects ingesting fish oil atherosclerosis," Atherosclerosis, 61: 129-134	
	D45	Tran et al., 1998, "Functional analysis of disulfide linkages clustered within the amino terminus of human apolipoprotein B," J. Biol. Chem. 273: 7244-7251	
	D46	Tran et al., 2000, "The assembly of very low density lipoproteins in rat hepatoma McA-RH7777 cells is inhibited by phospholipase A2 antagonists," J.Biol.Chem. 275: 25023-25030	
	D47	Tran et al., 2002, "Intracellular assembly of very low density lipoproteins containing apolipoprotein B100 in rat hepatoma McA-RH7777 cells," J.Biol.Chem. 277: 31187-31200	
	D48	Ueno et al., 1991, "Membrane markers of endoplasmic reticulum preserved in autophaic vacuolar membranes isolated from leupeptin-administered rat liver," J.Biol.Chem. 266: 18995-18999	
	D49	Verkade et al., 1993, "Impaired biosynthesis of phosphatidylcholine causes a decrease in the number of very low density lipoprotein particles in the Golgi but not in the endoplasmic reticulum of rat liver," J.Biol.Chem. 268(33): 24990-24996	
	D50	Vukmirica et al., 2002, "The N-linked oligosaccharides at the amino terminus of human apoB are important for the assembly and secretion of VLDL," J. Lipid Res. 43: 1496-1507	
	D51	Wang et al., 1995, "Degradation of apolipoprotein B in cultured rat hepatocytes occurs in a post-endoplasmic reticulum compartment," J.Biol.Chem. 270: 24924-24931	
	D52	Wang et al., 1999, "The activity of microsomal triglyceride transfer protein is essential for accumulation of triglyceride within microsomes in McA-RH7777 cells. A unified model for the assembly of very low density lipoproteins," J.Biol. Chem. 274: 27793-27800	
	D53	Wong and Nestel, 1987, "Eicosapentaenoic acid inhibits the secretion of triacylglycerol and of apoprotein B and the binding of LDL in Hep G2 cells," Atherosclerosis 64: 139-146	
	D54	Yao et al., 1997, "Intracellular degradation of newly synthesized apolipoprotein B," J. Lipid Res. 38: 1937-1953	
	D55	Yao and Vance, 1988, "The active synthesis of phosphatidylcholine is required for very low density lipoprotein secretion from rat hepatocytes," J.Biol. Chem. 263: 2998-3004	
	D56	Yamamoto et al., 1990, "Characterization of the isolation membranes and the limiting membranes of autophagosomes in rat hepatocytes by lectin cytochemistry," J. Histochem. Cytochem. 38: 573-580	
	D57	Zhang et al., 2002, "Creating new, fluorescent probes for cell biology," Nat. Rev.Mol. Cell. Biol. 3: 906-918	

Examiner Signature /Taeyoon Kim/ Date Considered 05/05/2010

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next reference considered. Applications filed before September 16, 2012 must include this form. Applications filed after September 16, 2012 must include this form and file under 37 CFR 1.57. Each reference cited must be initialed by the two-letter code (WIPO Standard ST.3).

¹Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. *Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application.

Confidentiality is governed by 35 U.S.C. 122 and 27 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief